WHAT IS CLAIMED IS:

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~~1. Npt2B present in other than its natural environment.~~

2. The Npt2B according to Claim 1, wherein said Npt2B has an amino acid sequence substantially identical to the sequence of SEQ ID NO:01.

3. A fragment of the Npt2B according to Claim 1.

4. A nucleic acid present in other than its natural environment, wherein said nucleic acid has a nucleotide sequence encoding Npt2B.

5. A nucleic acid according to Claim 4, wherein said nucleic acid has a nucleic acid sequence that is substantially identical to the nucleotide sequence of SEQ ID NO:02.

6. A fragment of the nucleic acid according to Claim 4.

7. An isolated nucleic acid or mimetic thereof that hybridizes under stringent conditions to the nucleic acid according to Claim 4 or its complementary sequence.

8. An expression cassette comprising a transcriptional initiation region functional in an expression host, a nucleic acid having a nucleotide sequence found in the nucleic acid according to Claim 4 under the transcriptional regulation of said transcriptional initiation region, and a transcriptional termination region functional in said expression host.

9. A cell comprising an expression cassette according to Claim 8 as part of an extrachromosomal element or integrated into the genome of a host cell as a result of introduction of said expression cassette into said host cell.

10. The cellular progeny of the host cell according to Claim 9.

11. A method of producing Npt2B, said method comprising:
growing a cell according to Claim 9, whereby said Npt2B is expressed; and
isolating said Npt2B substantially free of other proteins.

12. A monoclonal antibody binding specifically to Npt2B.

13. The antibody according to Claim 12, wherein said antibody inhibits Npt2B activity.

14. The monoclonal antibody according to Claim 13, wherein said antibody is a humanized antibody.

15. A method for modulating Npt2B in a host, said method comprising:
administering an effective amount of a Npt2B modulatory agent to said host.

16. The method according to Claim 15, wherein said modulatory agent is a small molecule.

17. The method according to Claim 15, wherein said modulatory agent is an antibody.

18. A method of screening to identify Npt2B modulatory agents, said method comprising:
contacting a cell expressing functional Npt2B on its surface with a candidate agent in the presence of phosphorous anion; and
determining the amount of phosporous anion uptake by said cell.

19. The method according to Claim 18, wherein said phosphorous anion is labeled with a detectable label.

20. The method according to claim 19, wherein said label is isotopic.

21. A method of treating a host suffering from a disease condition associated with Npt2B activity, said method comprising:

administering to said host a Npt2B modulatory agent.

22. The method according to Claim 21, wherein said Npt2B modulatory agent is an Npt2B agonist.

23. The method according to Claim 21, wherein said Npt2B modulatory agent is an Npt2B antagonist.

24. The method according to Claim 23, wherein said disease condition is characterized by the presence of hyperphosphatemia.

25. A non-human transgenic animal model capable of expressing Npt2B.